### **DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES Office of Structural Materials

Quality Assurance and Source Inspection

Bay Area Branch 690 Walnut Ave.St. 150 Vallejo, CA 94592-1133 (707) 649-5453 (707) 649-5493



Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 69.28

## WELDING INSPECTION REPORT

Resident Engineer: Siegenthaler, Peter **Report No:** WIR-018128 Address: 333 Burma Road **Date Inspected:** 15-Nov-2010

City: Oakland, CA 94607

**OSM Arrival Time:** 700 **Project Name:** SAS Superstructure **OSM Departure Time:** 1900 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

**CWI Name:** Li Yan Hua. **CWI Present:** Yes No **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A Yes N/A **Electrode to specification:** No Weld Procedures Followed: Yes No N/A N/A **Qualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A N/A Yes N/A **Approved Drawings:** Yes No **Approved WPS:** No Yes No N/A **Delayed / Cancelled:** 

> **Component:** OBG components.

34-0006 **Bridge No:** 

## **Summary of Items Observed:**

On this day CALTRANS OSM Quality Assurance Inspector (QA) Mr. Shailesh Wadkar was present during the times noted above for observations relative to the fabrication of the Self Anchored Suspension (SAS) Superstructure being performed by Zhenhua Port Machinery Company (ZPMC) at Changxing Island, in Shanghai, China. QA Inspector observed and/or found the following:

Bay 14:

Notification no: 007357.

This QA inspector performed Magnetic Particle Testing (MT) of approximately 15% of an area that has been previously tested and accepted by ZPMC Quality Control (QC) personnel. This QA Inspector has generated MT report for this date. The members are identified as OBG components. The weld designations MT inspected are as follows:

- 1) SEG3020AP-001.
- 2) SEG3020AQ-031.

Notification no: 007366.

This QA inspector performed MT of approximately 15% of an area that has been previously tested and accepted by ZPMC QC personnel. This QA Inspector has generated MT report for this date. The members are identified as

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OBG components. The weld designations MT inspected are as follows:

- 1) KP3003-001-001, 002.
- 2) KP3005-001-001, 002, 004, 006.
- 3) VP3002-001-001 to 006.

This QA Inspector observed the following work in progress:

OBG Seg 13BW:

The Flux Cored Arc Welding (FCAW) process on weld joint no: SEG3014P-038 [Edge Beam (EB) to Floor Beam (FB), complete joint penetration (CJP) weld at Panel Point (PP): 122]. The welder is identified as 045143 and was observed welding in the 3G position. ZPMC QC was identified as Sun Tian Ling. The welding variables recorded by QC appeared to comply with Welding Procedure Specification (WPS): B-T-2233-TC-U4b-F.

The FCAW process on weld joint no: SEG3015E-150 (EB to FB, CJP weld at PP124). The welder is identified as 201583 and was observed welding in the 3G position. ZPMC QC was identified as Sun Tian Ling. The welding variables recorded by QC appeared to comply with WPS: B-T-2233-TC-U4b-F.

The FCAW process on weld joint no: SEG3014D-026 [Longitudinal Diaphragm (LD) to FB, fillet weld at PP 121. 5]. The welder is identified as 045280 and was observed welding in the 3F position. ZPMC QC was identified as Sun Tian Ling. The welding variables recorded by QC appeared to comply with WPS: B-T-2133.

Corner Assembly for Seg 13BW:

Repair welding of weld joint no: CA3015A-005 [Side panel (SP) to Edge panel, CJP weld]. The welder is identified as 045246 and was observed welding in the 2G position. Welding process was identified as SMAW. ZPMC QC was identified as Wang Xian Ping. The welding variables appeared to comply with WPS: 345-SMAW-2G(2F)-FCM-Repair. Repair welding was done as per Welding Repair Report (WRR): B-WR 17011 Rev-0.

OBG Seg 13AW:

The FCAW process on weld joint nos: SEG3013M-213 and 214 (FB to RS stiffener CJP weld at PP118.35). The welder is identified as 070217 and was observed welding in the 3G position. ZPMC QC was identified as Wang Xian Ping. The welding variables recorded by QC appeared to comply with WPS: B-T-2233-TC-U4b-F.

OBG Seg 13BW and Seg 13CW:

ZPMC NDE personnel performing Ultrasonic Testing (UT) of CJP weld of Longitudinal Diaphragm (LD) to Bottom Panel (BP) from PP120.5 to PP124.5. See attached photo for further information.

**OBG Seg 13CE:** 

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ZPMC personnel performing heat straightening on the I-ribs (RS3213C) of Vertical Plate – VP3007A. ZPMC QC was observed as Zhong Guo Hai. Heat straightening was done as per heat straightening report (HSR): 9831. See attached photo for further information.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.





## **Summary of Conversations:**

No significant conversations were reported on this date.

### **Comments**

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang; phone: 15000422372., who represents the Office of Structural Materials for your project.

Inspected By:	Wadkar, Sailesh	Quality Assurance Inspector
Reviewed By:	Dsouza, Christopher	QA Reviewer